

Building Lifecycle Report

Planning Application for proposed Residential Development of 207 Dwellings and a creche at Gort Mell, Old Slane Road, Drogheda, Co. Louth.

May 2024

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Disclaimer

Without Prejudice to the generality of this Building Life-Cycle Report, the information provided is indicative and subject to change following development of the project through the planning application stage, detailed design and construction. As far as possible information is correct at the time of submission to the relevant authority for consideration.

1. Introduction

This Development Life-Cycle Report has been prepared by JFOC Architects for the proposed residential development at Gort Mell, Mell/ Tullyallen, Old Slane Road/ R168, Drogheda, Co. Louth.

The purpose of this report is to provide an initial assessment of long term running and maintenance costs as they would apply on a per residential unit basis at the time of application, as well as demonstrating what measures have been specifically considered to effectively manage and reduce costs for the benefit of the residents. It is also intended to establish the method in which areas of communal space that will contribute to a high-quality public realm can be made viable in tandem with public open spaces that will be taken-in-charge by Louth County Council.

Sections 6.11 to 6.14 of the Sustainable Urban Housing; Design Standards for New Apartments - Guidelines for Planning Authorities relates to the "Operations & Management of Apartment Developments". This report has been prepared in accordance with the requirement of section 6.13 of 'Sustainable Urban Housing: Design Standards for New Apartments. Guidelines for Planning Authorities' (December 2022), which states that any planning application for apartment developments "shall include a building life-cycle report which in turn includes assessment of long term running and maintenance costs as they would apply on a per residential unit basis at the time of application, as well as demonstrating what measures have been specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents".

This ensures compliance with the Multi-Unit Developments Act, 2011, which sets out legal requirements regarding the management of apartment developments, and consideration of the long-term running costs of the apartment building.

While not necessary under the Multi-Unit Developments Act, 2011, in conjunction with an assessment of the multi-unit apartment element of the development, this report also considers the proposed housing units as a holistic part of the whole development neighbourhood.

2. Proposed Development Description

This Building Life-Cycle Report relates primarily to the duplex units and secondly to the housing units associated with the residential scheme located on Lands at Gort Mell, Drogheda, Co. Louth.

The total proposed development on the nett site area of 6.1 hectares extends to 237 dwellings. The gross site area is 7.4Ha, and the nett site area for the original SHD Application is 6.1Ha. The first 30 houses from the already approved planning application ABP – 311678-21 are currently under construction. The subject site of this application extends to 4.8Ha.

The LRD planning application seeks modifications to the permitted SHD (APB-311678-21, as amended under P.A. Ref. 2360368) and the application relates to 207 of the 237 permitted dwellings and the construction of the crèche as a standalone building (crèche is permitted as integral part of one of the apartment buildings in the permitted development). The modifications proposed do not affect the 30no. permitted dwellings currently under construction (Amendment permission P.A. Ref. 2360368) other than a minor boundary adjustment to the garden boundary of No. 30. The modifications provide for amendments to the design, layout and dwelling types including the omission of two permitted apartment buildings (111no. apartments) with associated modifications to the road layout and distribution of public open space, car parking, site services and site development works including the undergrounding of ESB overhead lines and associated diversion works. The 207no. new house types and apartments proposed have a residential mix of 21no. 1-bed, 49no. 2-bed, 115no. 3-bed & 22no. 4-bed, one, two and three storey in height in detached, semi-detached and terraced formats. The overall number of dwellings as permitted under the SHD (APB-311678-21, as amended under P.A. Ref. 2360368) will remain unchanged at 237 dwellings. The overall permitted dwelling mix will change from 147no. apartments and 90no. houses, to 42no. apartments and 195no. houses. The mix of dwellings within the entire SHD site will be amended from 19no. 1-bed, 96no. 2-bed, 109no. 3-bed and 13no. 4-bed (as permitted under APB-311678-21 and amended under P.A. Ref. 2360368), to 21no. 1-bed, 49no. 2-bed, 142no. 3-bed and 25no. 4-bed. This planning application also seeks permission for 2no. ESB substations required to serve the proposed development. This planning application will be accompanied by a Natura Impact Statement (NIS).

The proposed tenure of the development is 90% Private/Build to Sell and 10% Part V Social/Affordable Housing.

Throughout the development a range of open spaces and amenities are provided which are available to residents of the various apartment units. The total public open space in the development is 0.91ha (15%). This includes an area of 252m² of Communal Open Space required for the duplex-apartments under the Apartment Design Guidelines.

All of the duplex apartments benefit from own-door access from the street at ground floor level or via external staircases to the first floor units. All apartments have been designed to

meet or exceed the standards put forward in the 'Sustainable Urban Housing: Design Standards for New Apartments (2022)'. Please refer to the Schedule of Accommodation and the Housing Quality Assessment that accompany this planning application.

3. Assessment of Long-Term Running and Maintenance Costs as they Would Apply on a per Residential Unit Basis

3.1. Property Management of the Development

A Property Management Company (PMC) would be engaged at early stages of the development to oversee the long term running and maintenance costs of the apartments and their associated communal spaces and public realm as well as the exterior elevations on behalf of the Owners Management Company (OMC). Within the apartment building, they will also undertake the management of internal circulation including staircases, other common areas, and landscaping. Throughout the site, the streetscapes and public realm are intended to be taken-in-charge by Louth County Council. The OMC will enter a contract with the PMC for no more than 3 years, after which it will be re-tendered, as prescribed by the PRSA.

Upon completion of scheme, responsibilities of the Property Management Company will include:

- Timely formation of the OMC. All future purchasers will be obliged to become members of the OMC.
- Estate Management
- Preparation of an annual Service Charge Budget for the development communal areas.
- Equitable apportioning of annual operational charges in line with the Multi Unit Development Act (MUD) 2011
- Engagement of Independent Legal representation on behalf of the OMC in keeping with the MUD – including completion of Developer OMC Agreement and transfer of common areas.
- Third Party Contractors procurement and management
- Accounting Services
- Corporate Services
- Insurance Management
- After-Hours Services
- Staff Administration

The overall development will benefit from the utilisation of a Planned Preventative Maintenance (PPM) programme. The PPM will be completed annually for the apartment building and public realm to include the shared external common areas. Consideration will

be given to the ongoing maintenance of the buildings assets in an effort to protect the asset lifecycle and to identify when replacements/upgrades are required. Items covered will guide which services are required, the timing and number of occurrences of same. Typical PPM programmes will detail the timing of the visits for fire alarm maintenance, lift maintenance, the landscaping specification, along with waste management protocols.

The Housing Agency provide useful guidance for the OMC the 'Owner's Management Companies – A Concise Guide for Directors'. The ten key Considerations for directors of owners' management companies outlined therein are:

1. Director's Duties
2. Board effectiveness
3. Performance versus conformance
4. The company constitution and register of members
5. Finances, cash and debtors
6. Company accounts and statutory audit
7. The role of the company secretary
8. Outsourcing
9. Annual general meetings
10. Dispute resolution

3.2. Service Charge Budget

The property management company has several key responsibilities including the compiling of the service charge budget for the development for agreement with the OMC.

The service charge budget covers items such as cleaning, landscaping, refuse management, utility bills, insurance, maintenance of mechanical/electrical, life safety systems, security, property management fee, etc., to the development common areas in accordance with the MUD Act 2011.

This service charge budget also includes an allowance for a Sinking Fund, and this allowance is determined following the review of the Building Investment Fund (BIF) report prepared for the OMC. The BIF report once adopted by the OMC, determines an adequate estimated annual cost provision requirement based on the needs of the development over a 30-year life-cycle period. The BIF report will identify those works which are necessary to maintain, repair, and enhance the premises over the 30-year life-cycle period, as required by the MUD 2011. Each year at a General Meeting of members, the OMC will determine the contribution to be made to the Sinking Fund, having regard to the BIF report.

Note: the detail associated with each element heading i.e. specification and estimate of the costs to maintain / repair or replace, can only be determined after detailed design and the procurement/construction of the development and therefore a BIF report is not included in this document however a typical BIF table is attached as Appendix A.

4. Measures to effectively manage & reduce costs for the benefit of residents

4.1. Design Proposals

Located on the periphery of Drogheda the proposed development at a density of 38.5 dwellings per hectare represents an appropriate and efficient use of land. The apartments are provided in three linear three storey blocks, with one bedroom simplex units at ground floor and two bedroom duplex units above. The balance of the units provided on site are two storey houses in terrace, semi detached and detached forms, providing a mix of two, three and four bedroom units with a standalone two storey crèche. All the apartment buildings benefit from own door access. Ground floor units have designed to for Universal Access, and the upper level duplexes have ambulant disabled access. The design is efficient in the use of land and space, with no shared spaces. This ensures an efficient level of circulation versus apartment space and thus service charges and maintenance costs faced by residents into the future are kept at reasonable levels.

Lifecycle costs are also determined by the durability and maintenance requirements of materials. We have selected high quality materials and finishes across the project. Durable, low-maintenance, familiar cladding materials such as brick and render minimise the impact of façade maintenance. Balconies are designed to be capable of fabrication off-site, resulting in higher standard of finish, reducing damage during construction and improved durability. Materials proposed for use on apartment building elevations and to surface level bicycle store and ESB substation are durable and of a quality that will not need regular fabric replacement or maintenance outside general day-to-day care. The choice of high quality and long-lasting materials such as brickwork and render as well as considered hardscaping and landscaping in the public, semi-public and private realms will contribute to lower maintenance costs for future residents and occupiers.

This report reflects the outline material descriptions and examples of typical materials and systems used for schemes of this nature and their associated lifespans and maintenance requirements. All information is therefore indicative subject to detailed design development. As the building design develops this document will be updated and a schedule will be generated from the items below detailing maintenance and replacement costs over the lifespan of the materials and development constituent parts. This will enable a robust schedule of building component repair and replacement costs so that running and maintenance costs of the development are kept within the agreed annual operational budget.

A general outline of the primary materials used in the scheme can be found below;

Measures are addressed under four main headings:

- External Building Fabric Material Selection
- Internal Building Fabric Material Selection
- Energy and Building Services
- Landscape Material Selection

4.2. External Building Fabric Material Selection

Materials have been selected with a view to longevity, durability and low maintenance with Consideration given to Building Regulations and include reference to BS 7543:2015 'Guide to Durability of Buildings and Building elements, Products and Components'

Please refer to the Materials and Finishes Section of the Architectural and Urban Design Report accompanying this planning application.

Measure	Description	Benefit
Brickwork	<p>While bricks have a high embodied energy, they are an extremely durable material. They are aesthetically pleasing, and continue to be attractive as they age and develop a patina. Brickwork proposed in this application is expected to have a lifespan of 100+ years. The mortar pointing however has a shorter lifespan of 25-50 years.</p> <p>In general, given their durability, brickwork finishes require little maintenance. Most maintenance is preventative: checking for hairline cracks, deterioration of mortar, plant growth on walls, or other factors that could signal problems or lead to eventual damage.</p>	<p>Extremely durable, with low maintenance requirements. Preventative maintenance by monitoring mortar joint deterioration ensures longevity of material. Attractive finish.</p>
Painted Render Finish	Mineral Paint, monocouche render or similar to provide long lasting, protective, and durable coating.	

Slate/ Tile Roofs	Slate/ Tile roofs with a typical life expectancy of 60+ years with good maintenance.	
Flat Roof	Small areas of flat roofs on other areas. Average lifecycle of 18-35 years on most flat roofs. It is expected that all will be warm deck roofs.	Flat roof technology is now as reliable as traditional roofs and adds to the contemporary nature of the scheme.
Windows and Doors	<p>All units double glazed with thermally broken frames in Aluminium or uPVC. All opening sections in windows to be fitted with suitable restrictors. Include for all necessary ironmongery; include for all pointing and mastic sealant as necessary; fixed using stainless steel metal straps screwed to masonry reveals; include for all bends, drips, flashings, thermal breaks etc. Aluminium has a typical lifespan of 45-50 years. uPVC windows have a typical lifespan of 20 – 35 years or more.</p> <p>Required maintenance: Check surface of windows and doors regularly so that damage can be detected at early stage and remedial action taken. Silicone seals and gaskets should be checked to ensure they are intact and secure. Check fixings and furniture and lubricate at least once a year. Ensure regular cleaning regime. Check for condensation on frame from window and ensure ventilation louvres are operable.</p>	Excellent airtightness and low maintenance.

	Refer to Materials & Finishes Section in the Architectural Design Statement.	
External Stairs	Concrete Staircase or prefabricated metal staircase. The external stairs will be required to be in compliance with Part M and Part K of the building regulations in particular.	
Balconies	<ul style="list-style-type: none"> • Concrete balcony system to engineer's detail, or • Powder-coated steel frame balcony system to engineer's detail or • Thermally-broken farrat plate connections to main structure of building. <p>Lifecycle:</p> <ul style="list-style-type: none"> • Metal structure has a typical life expectancy of 70 years dependent on maintenance of components. • Concrete structures have a high embodied energy, however it is an extremely durable material. Concrete frame has a typical life expectancy of over 80 years. <p>Maintenance: Relatively low maintenance required. Check balcony system as per manufacturer's specifications. Check all hardware components for wear. Check elements for signs of wear and/or weathering. Check for structural damage or modifications.</p>	Minimal ongoing maintenance
Balustrades & Handrails	<ul style="list-style-type: none"> • Metal balustrades • Fixing in accordance with manufacturer's details General glass and metal 	Minimal ongoing maintenance

	<p>items with a 25-45 year lifespan</p> <p>Regular visual inspection of connection pieces for impact damage or alterations</p>	
<p>Fall Arrest System for Roof Maintenance Access</p>	<ul style="list-style-type: none"> • Latchways Constant Force B1 Fall Restraint System/B2 Fall Arrest System • Installation in accordance with BS 7883 by the system manufacturer or a contractor approved by the system manufacturer. 25-30 years. Generally steel finishes to skyward facing elements can be expected to maintain this life expectancy. Required maintenance: Check and reset tension on the line as per manufacturer's specifications. Check all hardware components for wear (shackles, eye bolts, turn buckles). Check elements for signs of wear and/or weathering. Lubricate all moving parts. Check for structural damage or modifications. 	<p>Fall protection systems are a standard life safety system, provided for safe maintenance of roofs and balconies where there is not adequate parapet protection. A FPS must comply with relevant quality standards.</p>

4.3. Internal Building Fabric Material Selection

Measure	Description	Benefit
<p>Floors – apartment stair cores and entrances</p>	<p>Selected anti-slip porcelain or ceramic floor tile with inset mat well at entrance doors as required. Life span of 20- 25 years.</p>	<p>Low maintenance and easily cleaned.</p>
<p>Floors – lobbies/corridors</p>	<p>Selected carpet inlay on underlay. 13 years life span typically. Regular cleaning required</p>	<p>Attractive aesthetic for residents and flexibility to change in the future.</p>
<p>Walls</p>	<p>Selected paint finish with primer. Wall protection at heavy traffic areas with plasterboard substrate</p>	<p>Attractive aesthetic for residents and flexibility to</p>

	adjacent to cores where furniture moving will damage wall fabric. Finish lifespan of 2- 10 years, regular maintenance required	change appearance in the future.
Ceilings	Selected paint finish with primer to skimmed plasterboard ceiling.	Decorative and durable finish
Internal balustrades and handrails	Painted metal balustrade or proprietary glazed panel system face fixed to stair stringer/landing edge with polished stainless steel brackets and clamps to manufacturers installation details.	Durable finish.
Internal Doors and Frames	Selected primed and painted solid internal doors. Glass and aluminium door system to glazed entrances.	Durable finish with regular inspection and maintenance.

4.4. Energy Performance, Carbon Emissions and Building Services

Energy Strategy: All dwellings in the proposed development will be required to minimise overall energy use and to incorporate an adequate proportion of renewable energy in accordance with Building Regulations Part L 2019, Conservation of Energy & Fuel (hereinafter referred to as Part L) and anticipated future revisions. The Regulations require that the energy consumption and carbon emissions of every dwelling is assessed using the DEAP software and that reductions of 70% in energy consumption and 65% in carbon emissions are achieved when compared to a baseline dwelling. The baseline against which this reduction is to be measured is considered to be a dwelling which is constructed to comply with the 2005 version of Building Regulations Part L. It is also a requirement that all new dwellings are provided with a renewable energy source. The regulations state that 20% of the total energy consumed within the dwelling must be provided from renewable thermal sources (solar thermal, biomass, heat pumps) or renewable electrical sources (Photovoltaic, Micro-wind). In practical terms, for a multiple unit development, this requirement is usually met by incorporating PV panels at roof level, incorporating air source heat pump technology or by adding an element of biomass or micro-CHP to a district heating scheme. Based on the current design all of the proposed dwellings in the Gort Mell development are expected to comply with the requirements of Part L 2019. Preliminary calculations have been completed using the DEAP 4.2.0 software tools released by the SEAI and these indicate that the dwellings will meet the

new standard . The BER calculations that have been prepared indicate that all dwellings will achieve an A2 rating.

Please refer to the Energy Statement by Waterman Moylan Consulting Engineers that accompanies this planning application.

4.5. BER Certificates

Description:

A Building Energy Rating (BER) certificate will be provided for each dwelling in the proposed development which will provide detail of the energy performance of the dwellings. A BER is calculated through energy use for space and hot water heating, ventilation, and lighting and occupancy. It is proposed to target an A2/A3 rating for the apartments this will equate to the following emissions:

- A2 – 25-50 kwh/m²/yr. with CO₂ emissions circa 10kg CO₂/m²/yr.
- A3 – 51-75 kwh/m²/yr. with CO₂ emissions circa 12kg CO₂/m²/yr.

Benefit:

A BER Certificate will show prospective buyers or tenants of a dwelling the energy performance of the building thus giving an indication of the running costs.

4.6. Passive Solar Design

Description:

Daylight in buildings creates a positive environment by providing connectivity with the outside world and assisting in the wellbeing of the building's inhabitants. Daylight also represents an energy source; it reduces the need for artificial lighting, particularly in dwellings where natural light alone is often sufficient throughout the day. The design intent is to maximise the use of natural daylight to enhance visual comfort and not compromise thermal performance. The proposed development will have glazing specified that will minimise thermal conduction (u-value) while allowing for sufficient daylight and maximising solar gain. Maximising solar gain within the limitations of thermal comfort allows for a portion of the space heating load to be met passively during the day. This proposed development has been carefully considered to ensure there are minimal numbers of north facing private amenity spaces, and all dwellings are dual aspect.

A Daylight and Sunlight Analysis carried out on the proposed development by IES demonstrates that the buildings are compliant with standards.

Please refer to the Daylight and Sunlight Report by IES that accompanies this planning application for further details.

Benefit:

Good level of daylight within the development will ensure that occupants rely less on artificial lighting and heating.

4.7. Fabric Energy Efficiency

Description:

In order to limit the heat loss through the building fabric the thermal insulation for each of the plane elements of a new dwelling must meet or better the area weighted average elemental U-Values (U_m) as specified by Part L, listed in Table 1 (column; Part L 2018).

Benefit:

Lower U-values and improved air tightness is being considered to help minimise heat losses through the building fabric, lower energy consumption and thus minimise carbon emissions to the environment.

4.8. E-Car Charging Points

Description:

Ducting shall be provided from a local landlord distribution board to designated E-Car charging car park spaces. Management of this will be the responsibility of the Management Company and will enable them the option to install E-Car charging points within the carpark to cater for E-Car demand of the residence. This system operates on a single charge point access card. A full re-charge can take from one to eight hours using a standard charge point. Ducting will be provided to all in-curtilage carparking to facilitate EV Charging.

Benefit:

Providing the option of E-Car charging points will allow occupants to avail of the ever-improving efficient electric car technologies. We are proposing to provide a minimum of 20% - Approx. 19 No. -electrical vehicle charging points in the development. Ducting will also be provided to facilitate the installation of additional electrical vehicle charging points in the future if required.

4.9. LED Lighting

Description:

Lighting accounts for approximately 12% of all residential energy use. As homes become more energy efficient, lighting consumes an increasingly larger proportion of the total energy used. Selecting efficient fixtures and lamps helps reduce energy use. High-efficiency light

fixtures and lamps use up to 75% less energy, produce less waste heat, and last longer than traditional incandescent lighting. It is proposed to provide 100% of lighting outlets to be low energy (LED).

Benefit:

LED lighting will ensure that running costs are kept to a minimum.

4.10. Landscape Material Selection

Description:

The landscape design approach is to provide a variety of high-quality durable communal recreation areas for residents which feature a range of quality tree, shrub and herbaceous planting. Hard landscape paving and decking materials will be robust and durable and installed using proven details to minimise maintenance requirements. High slip resistance paving materials will ensure safety for all.

Benefit:

Proven planting details for trees, shrubs and hedging will ensure growth will be robust and future maintenance as minimal as possible.

4.11. Site Layout & Landscaping Design

Description:

In this development the quality of life of the pedestrian and cycle user has been prioritised. The scheme caters for these two user groups through strong integrations with the context where possible. High quality landscaping for both hard surfaces and soft landscaping with planting and trees. The landscape design by NMP Landscape Architects is fully compliant with requirements for Part M / K of the Technical Guidance Documents on this sloping site and will provide level access and crossings for wheelchair users and pedestrians with limited mobility. Please refer to NMP Landscape Architect's 'Landscape Design Report' for further details on Landscaping Design.

Benefit:

Plenty of room for cycles and pedestrians, strong links to local amenities the north and the south at Old Slane Road and the R168. Wheelchair user-friendly.

4.12. Paving & Decking Materials

Description:

Sustainable, robust materials, with high slip resistance to be used for paving. Durable and

hardwearing equipment (e.g. play, exercise, fencing etc.) to be used throughout. Please refer to NMP Landscape Architects 'Landscape Design Report' for further details on landscape materials.

Benefit:

Robust materials and elements reduce the frequency of required repair and maintenance.

4.13. Streets

Description:

Sustainable, robust materials in compliance with Louth County Council's taking in charge requirements are to be used on all roads and pavements. Please refer to NMP Landscape Architects 'Landscape Design Report' for further details on Landscape Materials.

Benefit:

Robust materials and elements reduce the frequency of required repair and maintenance while the different character of the materials and design will influence the user's behaviour.

4.14. Soft Landscape

Description:

Planting proposals have been formulated to complement the local setting as well as being fit for purpose in respect of private and public realm uses and spatial constraints imposed by garden sizes and the width of planting strips.

Benefit:

Reduction in the frequency of required soft landscape maintenance.

4.15. Sustainability & Biodiversity

Description:

Sustainability aspects of the proposed development include the retention of trees and hedgerows along site boundaries to the east and west and the use of native trees where possible across the site. The overall objective is to enhance the biodiversity potential of the site in addition to providing seasonal interest and variety. Judiciously placed flowering shrub and groundcover planting have been included to further promote biodiversity (pollinator species attracting insects and birdlife).

Please refer to NMP Landscape Architects 'Landscape Design Report' for further details on Sustainability & Biodiversity. This report outlines how the overall landscape strategy allows

appropriate existing green infrastructural assets to be protected and built upon to strengthen green infrastructural links across the site and to the surrounding environment.

Benefit:

Enhanced sustainability of long-term estate management.

5. Building Design

5.1. Own Door Access

Description:

All dwellings including ground floor simplex apartments, first floor duplex apartments and all houses have been provided with own-door access.

Benefit:

This approach minimises the need for shared circulation cores and corridors and their associated maintenance costs as well as the potential for these areas to generate anti-social behaviour. This approach also gives the resident a sense of ownership over their 'home'.

5.2. Shared Spaces

Description:

Shares spaces outside of the public open spaces and the public realm have been minimised in this development.

Benefit:

The apartments have been designed as a mix of duplex and simplex apartments in a very efficient manner. Cars has been removed from the streetscape and disguised in so far as possible. High quality public and private amenity spaces have been provided for all residents. This is of great benefit to both the apartment residents and the community as a whole.

5.3. Daylighting to Apartments

Description:

Where possible, as outlined in 'Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities' to have regard for quantitative performance approaches to daylight provisions 'outlined in guides like the BRE guide 'Site Layout Planning for Daylight and Sunlight' (2nd edition) or BS 8206-2: 2008 – 'Lighting for Buildings – Part 2: Code of Practice for Daylighting' when undertaken by development proposers which offer the capability to satisfy minimum standards of daylight provision'. Please refer to the detailed Daylight and Sunlight Report prepared by IES Consulting Engineers that accompanies this submission that has assessed this development with reference to BRE Guide 3rd Edition and IS EN 17037-2018+A1-2021 /BS EN 17037-2018+A1-2021 National Annex.

Benefit:

Maximises the presence of continuous daylighting, thus reducing the expense of artificial lighting.

5.4. External Lighting

Description:

External lighting will comply with the latest standards and achieve:

- Low-level lighting
- Utilise low voltage LED lamps
- Minimum upward light spill

Each light fitting shall be controlled via an individual Photoelectric Control Unit (PECU). The operation of the lighting shall be on a dusk-dawn profile. Please refer to the public lighting layout by Waterman Moylan Consulting Engineers.

Benefit:

Lighting will be designed to achieve the required standards, provide a safe environment for pedestrians, cyclists, and vehicular traffic, provide surveillance and limit the impact on the artificial lighting on surrounding existing flora and fauna. Having PECU allows for the optimum operation of lighting which minimizes costs.

6. Low Energy Technologies Considered

6.1. E-Car Charging Points

Description:

Ducting shall be provided from a local landlord distribution board to designated E-Car charging car park spaces. Management of this will be the responsibility of the Management Company and will enable them the option to install E-Car charging points within the carpark to cater for E-Car demand of the residence. This system operates on a single charge point access card. A full re-charge can take from one to eight hours using a standard charge point. It is proposed that 20% of public car parking spaces will be provided with EV charging points, with ducting provided to all carparking spaces.

Benefit:

Providing the option of E-Car charging points will allow occupants to avail of the ever-improving efficient electric car technologies.

6.2. Combines Heat & Power (CHP)

Description:

Combined Heat and Power, (CHP), is a technology that may be evaluated in the event a number of apartments remain in a single ownership. This technology generates electricity and captures the waste heat from the generation unit that can be used within the development.

Benefit:

CHP can achieve energy efficiencies by reusing waste heat from the unit to generate heat required for space heating & domestic hot water services in the apartment developments.

Please refer to the Sustainability Report prepared by IN2 Consulting Engineers for further details.

7. Health & Well Being

7.1. Natural Daylight

Description:

Design and orientation of the buildings has been optimized to achieve a good quality of natural daylight to the units. Please refer to IES Report on Daylight and Sunlight Analysis.

Benefit:

Good level of daylight within the development will contribute towards wellbeing and ensure that occupants rely less on artificial lighting.

7.2. Accessibility

Description:

All units, including access and egress, will comply with the requirements of Part M/K of the Technical Guidance Documentc. In addition, a minimum of 30% of dwelling have been designed in accordance with 'Building for Everyone: A Universal Design Approach' and 'Universal Design Guidelines for Homes in Ireland' in accordance with the Louth County Development Plan. Please refer to the Universal Design Statement in the Architectural and Urban Design Statement that accompanies this application.

Benefit:

Reduces the level of adaptation, and associated costs, potentially necessitated by residents' future circumstances.

7.3. Private Open Space

Description:

Provision of private open space for each dwelling is in accordance with the Sustainable and Compact Settlement Guidelines and the Apartment Design Guidelines as relevant.

Benefit:

Facilitates private interaction with outdoors, increasing health benefits.

7.4. Public Open Space

Description:

Provision of public open space at a rate of 15% for the full site area. Additional public amenity space is provided in the riparian corridor and ravine area to the east of the site, amounting to approximately 25% of the gross site area.

Benefit:

Facilitates communal interaction with outdoors and a biodiverse environment, increasing health benefits.

7.5. Security

Description:

Passive surveillance is incorporated into the design with all streets and public open spaces addressed by active street frontage from various angles. The removal of blind internal common areas and blind external space reduces the prospect of generating anti-social behaviour. The site is completely open access with the exception of private amenity spaces.

Benefit:

Reduce the risk of crime, littering within the scheme and reduction of potential waste charges.

7.6. Natural Amenity

Description:

A number of active and passive green spaces are proposed throughout the scheme. Please refer to the detailed landscape design proposals prepared by NMP Landscape Architects for details.

Benefit:

Facilitates community interaction, socialising and play – resulting in improved wellbeing.

8. Waste Management

8.1. Construction & Operational Waste Management Plan

Description:

This application is accompanied by a Construction Waste Management Plan prepared by Waterman Moylan Consulting Engineers.

Benefit:

These reports demonstrate how the scheme has been designed to comply with best practice both during the construction and operational phases of the development.

8.2. Storage of Non-recyclable Waste and Recyclable Household Waste

Description:

Each mid-terrace house, duplex and simplex apartment unit has access to a shared, covered and locked bin store. The size, number and distance of secure bin storage from each dwelling has been considered and evaluated as appropriate. Domestic waste management strategy: Grey, Brown and Green bin distinction with a competitive tender for waste management collection.

Benefit:

Access to all residents to reduce the risk of littering within the scheme and reduces potential waste charges.

9. Management

Description:

Consideration has been given to ensuring the residents have a clear understanding of the subject property. Proper understanding of correct use will have a long-term benefit in terms of proper maintenance cycles and durability. As such it is intended that once a purchaser completes their sale, a homeowner box will be provided which will include:

- Homeowner manual – this will provide important information for the purchaser on details of their new property. It typically includes details of the property such as MPRN and GPRN, Information in relation to connect with utilities and communication providers, Contact details for all relevant suppliers and User Instructions for appliances and devices in the property.
- Safety File prepared by the PSDP as required under Health and Safety Legislation
- A Residents Pack prepared by the OMC which will typically provide information on contact details for the Managing agent, emergency contact information, transport links in the area and a clear set of rules and regulations.

Benefit:

Residents are informed as soon as possible so that any issues can be addressed in a timely and efficient manner.

10. Transport & Accessibility

10.1. Access to Public Transport

Description:

The subject site is situated adjacent to the M1 retail park which provides for access to public transport. The main Drogheda McBride train station is approximately 4.5km from the site.

Benefit:

The availability, proximity and access to public transport services contributes to reducing the reliance on the private motor vehicle for all journey types.

10.2. Cycling and Pedestrian Permeability

Description:

Cycling and Pedestrian permeability have been prioritised in the design of this development.

Benefit:

Ensures long-term attractiveness of walking and cycling to a range of local facilities.

10.3. Bicycle Storage

Description:

Dedicated, secure bicycle parking for each dwelling is provided for at a rate that meets or exceeds the requirements of the Louth County Development Plan. Semi detached and detached houses have access to secure storage in rear gardens. Mid – terrace house are provided with secure bicycle storage to the front with capacity for one bicycle per bedroom. All apartments are provided with access to secure bicycle parking for at a minimum ratio of one bicycle space per bedroom. Please refer to the accompanying 'Schedule of Accommodation' and 'Quality Housing Assessment' for details of the bicycle storage provided for the development. Visitor bicycle parking is provided in the form of on street stands at a rate of 1 space per 2 apartments and 1 space per 5 houses in accordance with the Louth County Development Plan.

Benefit:

Accommodates the uptake of cycling and reduces the reliance on the private motor vehicle.

10.4. E-Car Charging Points

Description:

Ducting shall be provided from a local landlord distribution board to designated E-Car charging car park spaces. Management of this will be the responsibility of the Management Company for the apartment building and will enable them the option to install additional E-Car charging points for apartments to cater for E-Car demand of the residence. This system operates on a single charge point access card. A full re-charge can take from one to eight hours using a standard charge point.

A total of 14 no. electrical vehicle parking spaces are proposed and equates to 10% of the car parking provision. The requirement for EV charging has been considered in the sizing of ESB Sub-stations for the proposed scheme.

Benefit:

Providing the option of E-Car charging points will allow occupants to avail of the ever-improving efficient electric car technologies.

10.5. Car Sharing

Description:

While car sharing services such as Go-Car is already a popular option in city locations such as Dublin and Cork, it is expected to be used more widely in the future. The management

company should designate a visitor carparking space for car sharing when available or required in the future.

Benefit:

Reduces the reliance on the private motor vehicle and reducing oil dependency.

Appendix A

Items included in a Typical BIF – not specific to this development.

The BIF table below illustrates what would be incorporated for the calculation of a Sinking Fund.

BUILDING INVESTMENT FUND (SINKING FUND) CALCULATIONS			
Ref	Element	Life Expectancy	Cost
1	Roofs		
1.1	Replacement felt roof covering incl. insulation to main roofs/ overhaul to green roofs.	18	
1.2	Replacement parapet details	18	
1.3	Replacement/ repairs to facias	18	
1.4	Replace roof access hatches	26	
1.5	Specialist Roof Systems - Fall arrest	26	
1.6	Overhaul waterproofing details to penthouse paved areas	12	
2	Elevations		
2.1	Recoat metal panels to penthouse apartments	25	
2.2	Minor repairs and preparation for decorations of rendered areas	18	
2.3	Replace exit/ entrance doors	25	
2.4	Replace Rainwater goods	25	
2.5	Recoat powder coated Finishes to balconies / Grills to Basement vents	20	
2.6	Periodic replacement and overhauling of external fixings	5	
2.7	Replace Balcony floor finishes	25	
3	Common Areas		
3.1	Decorate Ceilings	7	
3.2	Decorate Walls	7	
3.3	Decorate Joinery	7	

3.4	Replace fire doors	25	
3.5	Replace carpets (stairwells & lobbies)	12	
3.6	Replace entrance mats	10	
3.7	Replace nosings	12	
3.8	Replace ceramic floors tiles Entrance lobbies	20	
3.9	Fixed Furniture & Equipment - Provisional Sum	18	

4	Basement & Car Parking		
4.1	Remove/ Replace ceiling insulation	25	
4.2	Repaint parking spaces & Numbering	7	
4.3	Replace store doors, ironmongery & digi-locks	15	
4.4	Replace Bike stands	25	
4.5	Replace basement access control at entrance & core entrances	12	
5	M&E Services		
5.1	General - Internal re-lamping	7	
5.2	Replace Internal light fittings	18	
5.3	Replace External light fittings (lights at entrance lobbies)	18	
5.4	Replace smoke detector heads	18	
5.5	Replace manual break glass units/ disabled refuge call points	18	
5.6	Replace Fire alarm panel	18	
5.7	Replace lift car and controls	25	
5.8	Replace Smoke Vent AOV's	25	
5.9	Replace security access control installation	15	
5.10	External Mains Water connection	20	
5.11	Electrical Mains and Sub Mains distribution	20	
5.12	Emergency Lighting	20	
5.13	Overhaul and/or replace Waste Pipes, Stacks & Vents	20	
5.14	Central Heat Pump Plant	20	
5.15	Central Boilers	15	
6	Exterior		

6.1	External boundary treatments - Recoat powder coated Finishes to railings	60	
6.2	Replace external signage	18	
6.3	Replace cobblelock areas	18	
6.4	15-year cutback & thinning of trees. Overhaul landscaping generally	20	
6.5	Replace CCTV provision	12	
6.6	External Handrails and balustrade	18	